

PhD Summer School, 25.06.2018

User-centric methodologies in research

Anna Matamala, TransMedia Catalonia Research Group
Departament de Traducció, d'Interpretació i d'Estudis de
l'Àsia Oriental

Universitat Autònoma de Barcelona



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Your research

Define your research in 10 seconds.

Write down keywords of your colleagues' research.

Research methodologies

Translation Studies research can focus on:

- Product.
- Process.
- User.
- Context.

(Saldanha & O'Brien, 2013)

Aim

Part 1. Discuss methodological aspects when dealing with users.

Share your views and research! I am only the facilitator of this workshop.

Part 2. One practical exercise.

Research methodologies

User: participant-oriented research.

Human agents in the translation process.

Who are they?

Human agents in the translation process

- Human agents in the context of:
 - Creation.
 - Reception.
- Translators, trainers, trainees, post-editors, interpreters, end users, readers, viewers, etc.
- What about East Asian Studies?

Terminology

- Participants.
- Informants.
- Subjects.
- Users
- ????

User-centric methodologies

Translation (or accessibility or...) as part of a process, not as an added element.

Can we use “user-centered design” methodologies in translation studies / accessibility / East Asian Studies?

User-centric methodologies

Harte et al (2017):

- An explicit understanding of users, tasks, and environments.
- A permanent involvement of users throughout the design and development.
- A design driven and refined by user-centric evaluations.
- An iterative approach.
- A multidisciplinary team with different skills and perspectives.
- A clear but at the same time flexible approach to user testing.

An example: the ImAc project

<http://www.imac-project.eu/>

Integrating accessibility in immersive environments.

Access services creation & reception.

An example: the ImAc project

Defining the users: UNCRPD framework or mainstreaming accessibility?

Reaching the users: user associations.

Involving them all along the process: “Nothing about us without us”.

An example: the ImAc project

Access services in immersive environments.

Before development: focus groups, basis of user requirements and platform specification.

During development: first pilot testing (formative evaluation). Focus groups development.

Towards the end: second pilot testing.

Research instruments: user-centric methodologies

- What research instruments can be used, and what do you know about them?
- Please make a list!

During the process: ET

<http://www.tobiipro.com/product-listing/>

<https://www.smivision.com/>

Demo:

https://www.youtube.com/watch?v=lo_a2cfBUGc

https://www.youtube.com/watch?v=x0_DyNOJ3IQ

<https://www.youtube.com/watch?v=HvA0AOnuyb4>

During the process: ET

Visual attention & visual distribution

Mean fixation duration

First fixation duration

Number of fixations

Gaze shifts between subtitles and images

Etc.

During the process: EEG

Emotiv Epoc+: <https://www.emotiv.com/epoc/>

Demo in another field:

<https://www.youtube.com/watch?v=bposG6XHXvU>

Electrical Activity of the Brain.

Psychological measures: for instance, immersion (Kruger et al. 2016).

During the process: GSR & HR

Galvanic Skin Response (electrodermal activity) and heart rate, often together with facial recording.

Emotional states: physiological responses (sudoration and heart rate).

Example: <https://www.youtube.com/watch?v=m6E6tpOHYkE&t=2s>

An example: NEA project

<http://pagines.uab.cat/nea/>

Voice-over versus dubbing effect in AST.

<https://ddd.uab.cat/record/190634>

During the process: keylogging

It records keyboard movements, including mouse and pauses.

Technical effort.

Temporal effort.

Cognitive effort (pause).

During the process: keylogging

InputLog: <http://www.inputlog.net/>

Translog: <http://www.translog.dk/default.asp?id=20>

Comparison:

http://www.writingpro.eu/logging_programs.php

An example: the ALST project.

During the process: screen recording

Camtasia: <https://www.techsmith.com/camtasia.html>

Blueberry Flashback Express:
<http://www.flashbackrecorder.com/express>

During the process: remote monitoring

Ethical issues

Webwatcher

RealtimeSpy

Indirect observation: TAP

Think aloud protocols

- During the process,
- After the process.

Does it influence the process?

How to process information?

Indirect observation: interviews

- Structured.
- Semi-structured.
- Non-structured.

Indirect observation: questionnaires

Paper versus electronic.

Open and closed questions.

Survey Monkey.

Google Forms.

Indirect observation: focus groups

- Facilitator.
- Interest in group, not individual variation.
- Example from IMAC.
- How to process data?

Other UX methods

- Goodman, Kuniavski & Moed (2012) Observing the user experience.
- Pannafino & McNeil (2017) Methods. A Quick guide to user experience research methods.
- Tullis & Albert (2013) Measuring the user experience.
- What can we learn from these methods?

Defining the test and the user

- Selecting the methodological approach: commercial context versus academic context.
- Selecting and profiling users: questionnaires and standardised tests.
 - Dialang test (language proficiency)
 - Cognitive tests on intelligence, processing speed or verbal skills: <http://www.akademai.com/doi/abs/10.1556/084.2016.17.2.4>

Experimental design: some initial questions

- Research question and hypotheses.
- Variables:
 - what do you expect to change? (dependent variable)
 - what will you manipulate in order to see the effect on the dependent variable? (independent variables)
- Who and how many?
- Stimuli/materials?
- Environment?
- Tools?

Experimental design

- Replicable (it can be repeated in future studies).
- Reliable (it is internally consistent, all elements that can distort the results have been controlled).
- Valid (it is measuring what you really want to measure).

...and following ethical principles.

Ethics

European Code of Conduct for Research Integrity:

- Honesty in communication;
- Reliability in performing research;
- Objectivity;
- Impartiality and independence;
- Openness and accessibility;
- Duty of care;
- Fairness in providing references and giving credit,
- Responsibility for the scientists and researchers of the future.

An example: UAB's ethical committee

- <http://www.uab.cat/web/comissio-d-etica-en-l-experimentacio-animal-i-humana-1345713724512.html>
- Looking at the online form:
<http://apps.uab.cat/ceeah/welcome.htm>

Some issues

- Informed consent.
- “Vulnerable” populations: alternative communication means.
- Protecting personal data.
- Open access in research.

Part 2. Practical exercise

UAB wants to create a new accessible multilingual website to attract East Asian students.

You want to design a research that takes into account users.

How would you involve users and what type of methods and tools would you use? Try to design a few experiments.

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